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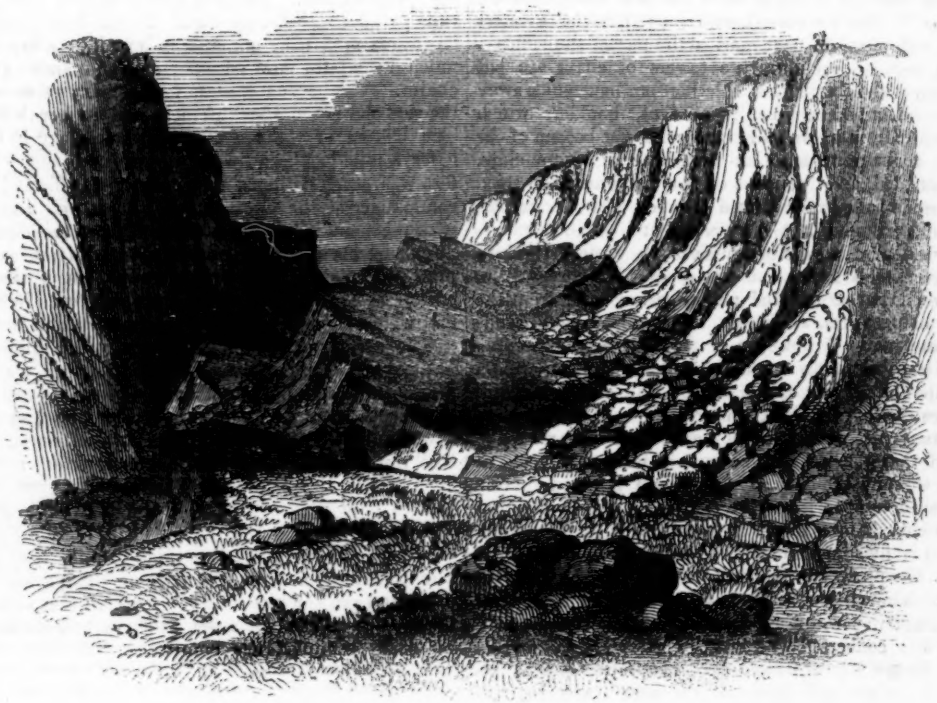
THE EXTRAORDINARY LAND-SLIP NEAR AXMOUTH, DEVON.



[View of the Land-slip near Axmouth, Devon, looking west.]

[From a Correspondent.]

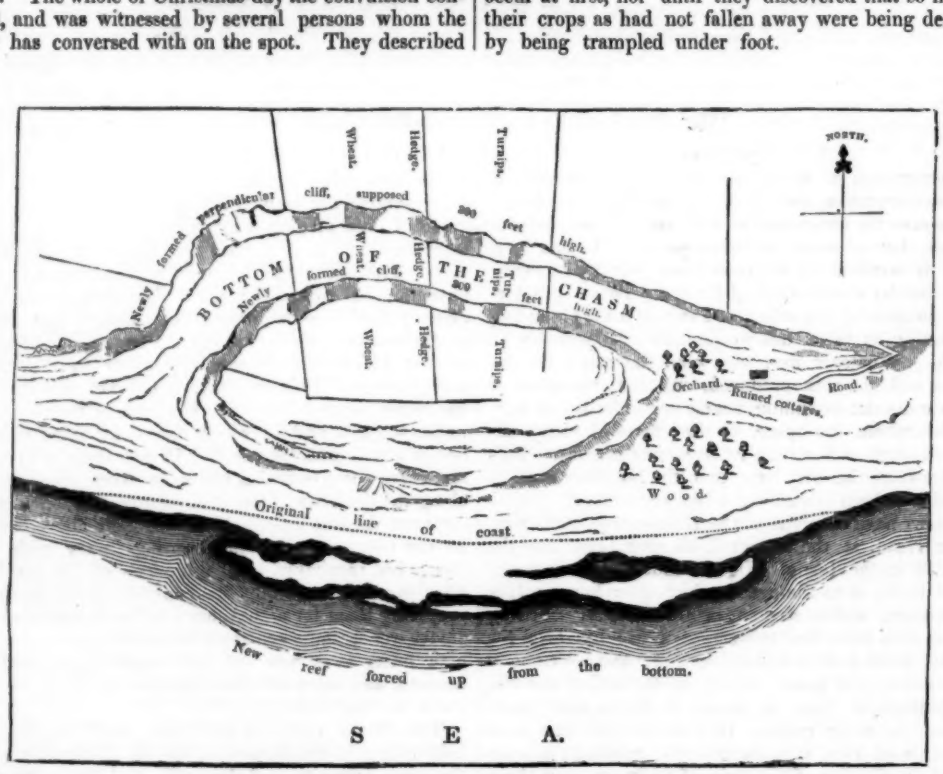
THE phenomenon of which we are about to speak is of such rare occurrence, and of so extraordinary a nature, as to deserve the consideration and interest not only of geologists, but of every thinking person. It had been asserted at first that the convulsion was literally an earthquake; but on examination of the spot, and on considering the position of the strata and the external producing causes acting on them, this supposition will probably be given up. Whatever may have been the cause, the devastation and the ruin produced, and the disruption of the whole district extending nearly one mile and a half, are equal, within the space, to the effects of many volcanic eruptions of Southern Europe or of Mexico. This is not however the first time that the southern coast of England has been visited by a like occurrence; similar convulsions have occurred in the Branscombe Cliffs west of Beer Head, at the Pinhay Cliffs near Lime, and the Undercliff in the Isle of Wight. But no record or account of these, as to the age in which they happened, is now existing, either written or traditionary. Setting aside the idea then, that subterranean fire has been the agent, we must look to something else; and we come to the conclusion that water, acting on the soil of the district, predisposed from its nature to be so acted upon, has been the main cause. In order to enter on a brief explanation of this, it is necessary to mention the position and distribution of the series of rocks running along this coast. First we have the chalk; this rests on a stratum of moderately indurated sandstone, alternating with beds of that species of flint denominated chert: this lies on the new red-sandstone formation, or red marl; or, as it is provincially termed in the neighbourhood, "fox-mould:" and this last is incumbent on the lias, in which there occurs a great quantity of tough and impervious clay. The fox-mould is confidently supposed to be the formation in which the great disturbing causes have arisen; for it is of a loose, spongy nature, and imbibes all the moisture which falls on the surface in the form of rain, or which filters through the upper strata from distant springs. This moisture could not subside to the lias below, owing to the imperviousness of the clay, which resists it there, and on which the water rests, as on the bed of a well puddled canal. Where these strata therefore show their basseting edges, or where they crop out along the declivity of the cliff, springs will be seen issuing from the soft fox-mould immediately above the clay. In the course of ages these springs carry with them, slowly but inevitably, great quantities of the friable and loose earth, undermining the superincumbent strata, and preparing them for a subsidence as soon as an extraordinary wet season, such as we have just experienced, shall both hurry away more of the remaining support from beneath, and saturate with a greater weight of moisture the several soils above.

The chasm runs east and west, nearly a mile and a half in length, and somewhat curved; the convex part of the curve being toward the north, and the centre of the circle, of which it forms a segment, towards the south. The depth of the chasm is said to be between 200 and

300 feet, and its width is twice or thrice that number of feet. This long strip of land has subsided, towards the middle of it, with great regularity and precision: large areas of four different fields, with their surfaces unbroken, and only somewhat thrown from their original level, still bear their crops of turnips and young wheat. The hedges too, which divided these fields, and which run to the brink of the precipice and there stop, can be traced across the portions which have subsided, and their corresponding hedges further traced on across the land on the other side of the gulf. This regularity however does not range throughout. The western end is much disrupted; but it is towards the eastern extremity that the greatest ruin and devastation have marked the face of the country. Vast pinnacles like immense towers of chalk are left standing, while the more friable portions have sunk away around them; huge banks of flint, boulders which have fallen from above and now rest in the bottom of the chasm, rocks rent asunder, fissures seaming the cliffs, trees uprooted, and the ruins of two cottages which stood in the midst, altogether form a scene of wildness, desolation, and grandeur, at once awful and sublime.

It was about three o'clock on Tuesday morning, the 24th December, 1839, that the family of Mr. Chappell of Dowland's Farm, situated about half a mile from the actual disturbances, were awoke by a crushing and rending noise: nothing however again occurred for twenty-five hours, that is, till four o'clock on Christmas morning, when the inhabitants of one of the now ruined cottages were awoke by hearing similar sounds, so violent as to make them get up. On going down stairs the man discovered that the floors of his cottage were thrown out of their level, and the door so warped and jammed that he was unable to open it without violence. He found that several large fissures were running through the ground on which his dwelling stood; and he instantly hurried off to Mr. Chappell his landlord, to mention the circumstance. The whole of Christmas-day the convulsion continued, and was witnessed by several persons whom the writer has conversed with on the spot. They described the noise as resembling crackling thunder; sometimes as if distant and confined, and sometimes as if near and terrific. They saw the earth sink, some portions slowly, and others with precipitancy and ruin. Some teams of horses, which they had with them in the fields, were so terrified as to tremble and be totally incapable of work. The sinking however of this immense extent of country, comprehending portions of four fields and an entire orchard, many of whose trees are still standing, a large wood composed of ash, oak, hazel, and beech, besides a great range of sheep pasture, all this is but one moiety of the phenomenon. Between the chasm so sunk, which runs parallel with the coast and the sea-beech, there is a large area measuring one mile in length by about half as much in width, now cut off from the mainland by the chasm. This great mass was forced many yards towards the sea, and is scored with cracks and rent with fissures. The bottom of the sea extending all along in front of it for a mile has been thrown upwards, so that what before was seven fathoms under water, as affirmed by the commander of the Coast-guard, who is well acquainted with the soundings here, now rises above the water-level in extensive ridges of rocks, covered with sea-weed and marine shells. This new reef, more than 40 feet long, encloses a bay or small harbour in which boats have been, and which in some places has a great depth of water.

The destruction of property is of course immense: it belongs to a gentleman residing at Colyford, about five miles distant. The tenants and subtenants are endeavouring to remunerate themselves for the loss of their crops by levying a toll of sixpence per head on all visitors who trespass on their fields. It is said they are taking 7*l.* a day in this manner. This however gives but 280 visitors daily; whereas during the first week after the catastrophe the cliffs were so thronged, that they stood, as the farmer expressed it, "as thick as a flock of sheep." Unfortunately for them the idea of levying toll did not occur at first, nor until they discovered that so much of their crops as had not fallen away were being destroyed by being trampled under foot.



[Plan of the Land-slip near Axmouth, Devon.]

CULTIVATION OF THE TEA-PLANT IN ASSAM.—No. I.

Pepys, secretary to the admiralty in the reign of Charles II. and James II., says, in his pleasant and gossiping Diary, dated 1661, that he "sent for a cup of tea, a Chinese drink, of which he had never drank before." Early in the last century tea had come more into use, and in 1734 the consumption amounted to 632,374lbs. In 1838 the quantity of tea consumed in the United Kingdom was 32,351,593lbs., or it may be stated in other words at nearly 400,000 chests, weighing in the aggregate above 1400 tons. The duty of 2*s.* 1*d.* per lb. produced the sum of 3,362,035*l.* The large quantity of tea every year required for the consumption of this country has hitherto been obtained solely from the Chinese, with whom we have long had commercial relations, though for some years our intercourse has been in an uncertain and unsatisfactory state, and at this moment is totally suspended. The price of tea is in consequence higher than it has been at any time since the opening of the trade to China in 1833, and there is every prospect of the advance being maintained for a considerable period, at least until the present differences are settled. It is not however the suspension of the trade—for that may be only temporary—which gives importance to the subject of the present notice, but its connection with the welfare and happiness of that mighty empire placed under our dominion in India. The interruption in the supply of tea through the ordinary channels may render idle British capital employed in commercial shipping, but as it is not likely that the Chinese should carry their anti-social policy so far as to exclude all foreigners from Canton, we might, even though shut out ourselves, still rely upon being supplied with teas by other nations, who would gladly become our carriers. The present state of our intercourse with the Chinese is undoubtedly a subject of great interest, uncourteous as they are to the English and other foreign 'barbarians;' but, as we stated before, the trial now making in Assam to cultivate the tea plant for commercial purposes derives its importance from the advantages which the introduction of a branch of industry suited to their quiet and sedentary habits will confer upon our fellow-subjects in India. They have been deprived of their occupations in many instances, and their skill and industry have been superseded by the power-looms of Manchester and Glasgow; but if we could be supplied with tea from India instead of China, such an employment as the cultivation and making of tea would promote peaceful habits of industry among the Hindoos, would render the slopes of barren mountains fruitful, and add an additional staple for export equal in value to that of the aggregate mass of indigenous articles now shipped to England, and thus prevent the loss in exchange which the East India Company experience in remitting home their territorial revenues. It is on these grounds that we regard the Assam experiment with feelings of no ordinary interest; and the following account of the circumstances under which it originated is drawn up from authentic sources, under the conviction that many of the readers of this work are likely to entertain a similar feeling.

When we consider that all the indigo formerly used in England was grown in South America, and that now, out of 7,000,000lbs. imported into this country each year, less than 150,000lbs. is from that quarter, while from India, where attention only began to be paid to the cultivation of indigo about the commencement of the present century, we obtain 6,500,000lbs., or thirteen-fourteenths of the whole quantity imported, and that in some other commodities the like revolutions have occurred, we are prepared to see without surprise similar changes in process in respect to tea or any other article of extensive consumption. These vicissitudes, indeed, are always worthy of attention, as they involve the practical application of a knowledge of botany or physical geography, of geology, or some other department of knowledge, and sometimes they illustrate the spirit of commercial intercourse betwixt nations.

The tea-plant, it must be observed, is capable of enduring great variety of climate, though often considered indigenous to China. It flourishes over a space greater than most plants, thriving luxuriantly within the tropics, and growing in sheltered situations in Devonshire and Cornwall; but though it sustains itself tolerably well in this country, it does not blossom with us except when stimulated by the artificial heat of the conservatory. The apparent ease with which the tea-tree is naturalised, and its commercial value, have led to its introduction in various quarters. It has been cultivated by the Japanese, Javanese, and Burmese, for the sake of the leaf; and in Brazil, Carolina, the Caribbee Islands, Martinique, Penang, New South Wales, Ceylon, St. Helena, Corsica, and even in the environs of Paris attempts have been made to naturalise it with the design of deriving a profit from its produce. The failure which has attended the experiment in all the latter countries is to be attributed to uncongeniality of temperature or soil, or to the combined defects of both. Du Halde states that even in China the leaves produced from the tea-plant, when it grows on a clayey soil and in a low situation, are very inferior, and yield even a disagreeable flavour. To all appearance the plant is as flourishing as those which produce the best kind of tea, and yet the leaves do not possess their genuine properties. The vine, the tobacco, rhubarb, poppy, and many common garden plants are occasionally defective in flavour from an analogous cause.

If we look to China, we find the great tea districts from which Europe is supplied extending from latitude 27° to 31° north. These districts are remote from the sea; the surface of the country is hilly and mountainous, and the soil light and gravelly; the climate moist, but not immoderately so; the winter of six weeks' or two months' duration, and in summer the sun is extremely powerful. All attempts to render the tea-plant an object of profitable cultivation are sure to fail unless the soil, temperature, and situation of the place where it is transplanted are such as are naturally congenial to it. The best teas of China are produced over an extent of country whose mean annual temperature ranges from 54° to 73°; the heat of summer not descending below 80°, and the cold of winter ranging from 54° to 26°: a mean annual range of from 56° to 64° is considered the most favourable temperature. The sides of mountains or considerable hills on their southern aspect, and where the soil consists of the disintegrated rock, is the best situation for planting.

Such being the conditions necessary to enable the tea-plant to arrive at perfection, we must attribute the numerous failures which have occurred to insufficient information concerning the physical geography of the parts where it is known to be most successfully cultivated. The gross blunders which have been committed can be accounted for on no other ground. One gentleman who established a large tea plantation at Penang found, on the arrival of the season for gathering the leaves, which were thick, hard, and leathery, that on infusion they had acquired slightly emetic properties. Early in the present century the cultivation of the tea-plant was commenced on a large scale at Rio Janeiro; Chinese were introduced to prepare the leaves, but the flavour of the infusion was so far from being such as could be wished, that the plantation was necessarily abandoned.

Penang is situated near the equator, the temperature is equable during the whole year, but the mean annual heat is 80°, and the annual fall of rain is excessive, amounting to eighty inches. Rio Janeiro is also within the tropic, and here also the mean annual heat, as well as the moisture, is too great. We need not proceed further in pointing out the cause of failure in other cases where the temperature, situation, and other circumstances

differed widely from those which prevail in the tea districts of China.

Nearly half a century ago (in 1793) Lord Macartney, while on his embassy to China, procured a supply of tea-plants and sent them to Bengal, believing, as Staunton says, that that part of India contained districts which would prove favourable to their cultivation. We do not know what was the fate of these plants. Dr. Wallich noticed, in 1818, a tea-plant thriving vigorously in Nepaul. About the year 1820, Mr. Bruce penetrated into the forests of Sudiya, and found the wild tea-tree. In 1826, it appears that Mr. David Scott, then employed in the district of Munnipore, sent to Calcutta specimens of the leaves of a shrub which he asserted to be the real tea-plant, and though there is considerable difficulty in distinguishing the *Camellia* from the tea-tree, subsequent events are in favour of Mr. Scott's discovery. In 1827, when Lord Wm. Bentinck was appointed Governor-general of India, an intelligent gentleman of the name of Walker urged upon his Excellency the great advantage which India would derive from the successful introduction of the tea-plant; and in 1832, at the request of the Right Hon. Charles Grant (now Lord Glenelg), who was then secretary of the Board of Control, Dr. Wallich drew up a valuable paper containing a series of observations on the cultivation of the tea-plant for commercial purposes in the mountainous parts of Hindustan. Fortunately the Governor-general became impressed with views of a similar nature, and in an official minute dated January, 1834, he laid down for consideration the question "whether there are not reasonable grounds for the conclusion that there must be, in all the varieties of climate and soil between the Himalaya and Cape Comorin, combinations of both that must be congenial to this particular plant; and next, how far it may be practicable to have from China cuttings of the tree and best descriptions of the plant, and knowledge and skill for its cultivation, and for the subsequent process of preparing the leaves for use." There began now to be prospects of fairly realising the project of cultivating tea in India, and this minute of the Governor-general's concluded by strongly recommending the attempt. On the 1st of February, 1834, the Governor-general appointed a committee for the purpose of devising a plan to be laid before government on the best means of accomplishing the proposed object and superintending its execution. This committee was called the "Committee of Tea Culture," and consisted of gentlemen of high character and great intelligence resident at Calcutta.

[To be continued.]

ON TELEGRAPHIC COMMUNICATIONS.

THE saving of time is one of the great features which distinguish a busy nation from others whose transactions are of less extent and importance. In the application of steam-power to manufacturing purposes, in propelling ships by the same power, in the employment of a railroad as a medium of communication between distant towns, the saving of time, although not the only, is the chief advantage gained over previous arrangements. It is precisely in the same light that we are to view the object and utility of *Telegraphs*, instruments employed for the communication of intelligence to a distant station in a very short space of time.

In the common events of life, speaking and writing are sufficient to serve as agents for communicating our thoughts to others; but when a considerable distance separates the parties, *loss of time* is an inevitable accompanying difficulty. The human voice, under ordinary circumstances, cannot be heard beyond a limited range. There is, indeed, an instance on record, in which persons have conversed at a distance of one mile and a quarter: this occurred when Captain Parry was at Port Bowen, in one of his winter-quarters, on which occasion two persons conversed at the distance here stated, a broad surface of ice separating them. But this is of course an extreme case, and is as little to be taken as a standard of the audibility of sounds, as is a well authenticated case in the opposite extreme, where, during the American War, the motions of a drummer beating his drum were distinctly visible, while the sound was totally inaudible: in this case, a thick mass of *snow* covered the intervening ground. We know, however, that in common circumstances the voice is audible only within a very limited distance.

On the other hand, if the communication be made in writing, the distance may be unlimited, but the messenger, the mail, the ship, consumes time in conveying it. None of the ordinary methods by which speed is attained are sufficient to overcome this difficulty, and, except in particular cases, we do not recognise the difficulty as a fatal one; we are willing to conform to what appears inevitable. But suppose a necessity to arise for the immediate conveyance of intelligence to a distance: suppose that an army is divided into different corps, and spread over a great extent of country; that any central body whatever wishes to issue orders of importance to its agents scattered far and wide; that a country is in danger of foreign attack; that the government at the capital is desirous of hearing important news from a seaport; that this news is of a kind that ought to be known throughout the whole country: in any such case, every minute teems with importance; and half a dozen words expressed and communicated instantaneously might be of more value than a whole document if delayed several hours. Such circumstances have occurred, the desirableness of such rapidity of communication has been felt, and the means of accomplishing it have been devised. All such means are called *Telegraphs*, a name derived from two Greek words, which, as well as the German name *Fernschreibmaschine*, imply *distant writing-machine*.

Before machines deserving the name of telegraphs were invented, signal-lights were frequently used in naval and military operations. Large fires, torches, rockets, &c. have been employed to produce a signal which shall be visible to a great distance; while drums, trumpets, explosions of gunpowder, firing of cannon, &c. have been used as audible signals. The writings of so many ancient authors contain allusions to such contrivances, that there is no doubt of their extensive use in early times. Still, however, such means were inadequate to the carrying on of conversation: a very few preconcerted signals were all that could be attained. It was not, indeed, until 1793 that the term *telegraph** was applied to any machine for such a purpose, or that a distant conversing-machine was actually brought into public use. Yet such a contrivance had been suggested more than a century before. The Marquis of Worcester, in his 'Century of Inventions,' speaks of a method of holding converse with distant persons both by night and day; but he gives no account of the means. Dr. Hooke, in 1684, made a suggestion which was in every way more clear and satisfactory. He proposed, that in order to keep up a communication between two distant places, certain elevated intermediate stations should be chosen, and at each station persons provided with telescopes capable of commanding a view of the adjoining stations. At each station should be erected a frame-work, from which is suspended several deal boards, hinged together at the corners, so that by exposing to view those boards, the peculiar manner in which they are arranged shall be visible to the telescopic observer at the next station, and shall convey to him a signal, the meaning of which is to be previously agreed upon. The boards are then to be differently arranged,

* The French in the first instance applied the term 'Semaphore' (sign-bearer) to their telegraph.

by which a different signal will be conveyed, and so on. It was Dr. Hooke's fortune to be the first proposer of many contrivances which in subsequent years others followed out. Such was the case with respect to the telegraph, as we shall presently see.

Other contrivances were proposed by Amontons, Mr. Lovell Edgeworth, &c. But we must come down to the year 1793. At that period Chappe erected a telegraph on the roof of the principal pavilion of the Louvre at Paris, in order to convey orders from the Committee of Public Safety to the French army stationed at Lisle. The orders were written out and sent up to the telegraph, the managers of which put the orders into a telegraphic form, by which they were visible to the persons at the second station, situated on Montmartre. At Montmartre the same signals were again repeated, and made visible to the persons at the third station; and so on until the orders reached Lisle, the stations being three or four leagues distant from one another. Three persons were placed at each station: one person with telescopes to observe the distant signal; another to write it down and to give the necessary orders to the third, who worked the machine, in order to convey the information to the adjoining station. Some of the signals used were for words, others for letters. Three signs were made in one minute, so that a whole sentence could be rapidly communicated from station to station. Without going into the intri-

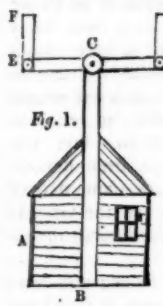


Fig. 1.

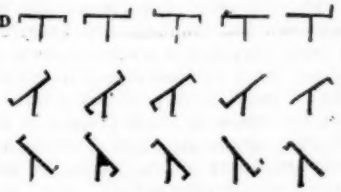


Fig. 2.

cacies of mechanism, the annexed cut may show how different signs were expressed by three planks. Through the middle of a small hut (*fig.* 1, A), which served as an observatory, rose a strong mast or beam, BC, to a considerable height above the roof of the hut. On the top of this was placed a horizontal plank, DE, moving freely round a pivot at C. At the ends were two shorter planks, FF, which moved likewise on pivots at D and E. Several ropes were carried up the mast and made to act severally on the three pivots, so that each one was completely in the power of the persons stationed in the hut below. The object, therefore, was to place the three arms in various relative positions, each position being a symbol for some particular word or letter: *fig.* 2 will convey an idea of some of the very numerous positions into which the machine may be thrown, each pivot being acted on independently of the other two. From the window in the hut, the observer, with a telescope, observed the signals made at the adjoining station. The ropes and other machinery of the telegraph we need not show here.

This contrivance was found to answer so well its intended purpose, that the English Admiralty soon afterwards resolved on adopting a telegraphic communication from London to Deal, Portsmouth, and other towns on the coast. The plan adopted was scarcely so simple as that of Chappe: we shall here described it, and shall represent by a cut the signal-boards, but divested (for the sake of simplicity) of the ropes and other working machinery. On the top of the Admiralty was erected a frame-work, containing six octagonal boards, 1, 2, 3, 4, 5, 6. Each of these boards was moveable on a horizontal axis, so as to present sometimes its whole surface, and at other times only its edge, to an observer. *Fig.* 3 (*a*)

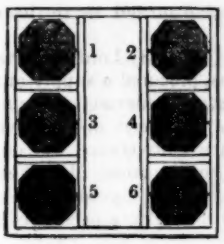


Fig. 3 (*a*).

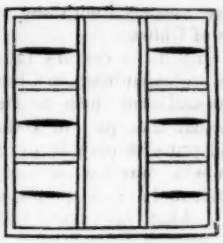


Fig. 3 (*b*).

represents the frame with the surfaces of all the boards presented to view; in *fig.* 3 (*b*) only the edges are visible, the boards having been turned one-quarter round on their axes. Up the central space are arranged the ropes and pulleys for moving the boards. Now the signals conveyed by this telegraph depended on how many, and which, of the six openings were *closed* by the boards. When the machine was not at work, all the ports or doors were open, as in (*b*); when the port (1) was closed by its board or shutter, it signified a certain letter or word; when (2) was closed, it signified a different letter or word; when both (1) and (2) were closed, the meaning was again changed, and so on. It admits of calculation, that the number of different combinations of closed doors, from one to six, capable of being produced, is about sixty; and of this number the Admiralty selected thirty-six of the most convenient, to express the letters of the alphabet, comma, semicolon, the words "attention," "repeat," "error," and one or two others. With this apparatus, many important despatches, commands, &c. were conveyed to and from London during the last war, there being telegraphs at intermediate stations between London and the southern coast.

But this machine was not so convenient as the one by Chappe; it was too ponderous to be elevated to any great height; and moreover the boards were not visible at so great a distance as the planks in the French telegraph, a circumstance which rendered it necessary to have the stations closer together. Accordingly, in 1816, the old telegraph was taken down from the Admiralty, and another on a different principle erected. But some years before this, various changes in the French telegraphs were made; particularly in 1806, when new ones were erected on the whole extent of the French coast. The construction of these was very simple: an upright post was fixed, and to it were attached three arms at equal distances. These arms were capable of turning on a horizontal axis in any direction, by pivots placed at their ends. Each arms was governed by a rope from below, and the various signs were given by the various positions in which the arms were placed; thus, if the arms were all horizontal, one sign was expressed; if two were horizontal, and the other concealed behind the vertical part, another sign was expressed; if all inclined upwards, a third sign; if all inclined downwards, a fourth, and so on. By various combinations of position, 342 distinct and very visible signs could be conveyed.

The telegraph adopted in England in 1816, from the suggestion of Sir Home Popham, is an improvement on the French machine just described. It consists merely of an upright post with two arms; the various positions of these two arms represent the letters of the alphabet, and a few other necessary signs. The great improvements in this form of the machine are these:—1, the arms, when not in use, are entirely enclosed in the hollow vertical part; 2, the communication from beneath, by which the arms are moved, is made by long spindles, terminated with a mechanism of toothed wheels at each end, instead of the ropes and other shrinking materials of the older methods; by this a more vigorous and certain movement is obtained; 3, there are dial-plates at the bottom of the upright post, with indexes or hands, which, by

being connected with the spindles that move the arms, always indicate the precise positions in which the arms are placed, so that by looking at the dials (which are within a small room or observatory) it can be seen what movements are necessary to produce a new sign, the movements being made by two men working winches connected with each arm; 4, the whole machine is moveable on a central pivot, so that the broad surface of the arms can be turned in any direction; whereas in the old method, the boards could only be seen in one direction.

These details will be sufficient to convey to the general reader some idea of the principle on which telegraphs have been generally constructed. But it may be necessary to state, that in these telegraphs the observers at each station must employ telescopes to read the symbols exhibited at the adjoining stations; also, that it must be previously agreed upon at what hour or other appointed time observations shall be made; and lastly, that a vocabulary or dictionary of signs must be well understood by all concerned. But this is not all, the vocabulary is, in war time, frequently changed, in order to prevent the signs from being interpreted by any one not in government service. An instance occurred during the last war, in which some English seamen landed on the French coast, attacked a telegraph, and brought away the symbol-book or vocabulary. This was copied and distributed to the Channel Fleet. The consequence of which was, that many of the most important signals made from one telegraph to another were detected and interpreted by the officers in the English ships. This would not have occurred had the vocabulary been changed after the seizure of one of the signal-books.

Several other ingenious methods for rapid communication have been invented, and some brought into use. Of these we may probably find a future occasion of treating.

JOHN ELWES, THE MISER.

[Continued from No. 504.]

Mr. Elwes, from his father Mr. Meggot, had inherited some property in houses in London, particularly about the Haymarket. To this property he began now to add by building. Great part of Marylebone soon called him her founder. Portland Place and Portman Square, and other structures too numerous to name, rose out of his pocket, and had not Lord North and his American war kindly put a stop to this rage of raising houses, much of the property he then possessed would have been laid out in bricks and mortar. As it was, he became, from *calculation, his own insurer*. In possessions so large, of course it would happen that some of the houses were without a tenant; it was therefore Mr. Elwes's custom whenever he went to London, to occupy any of these premises which might happen to be vacant. He travelled in this manner from street to street, frequently an itinerant for a night's lodging; a couple of beds, a couple of chairs, a table and an old woman, were all his furniture, and with these, whenever a tenant offered, he was but too glad to move at a moment's warning. Of all these moveables, the old woman was the only one that gave him any trouble, for she was afflicted with a lameness that made it difficult to get her about quite so fast as he chose, and then the colds she took were amazing. The scene which terminated her life is not the least singular among the anecdotes recorded of Mr. Elwes. The circumstance was related to me, adds Mr. Topham, by Colonel Timms himself:—Mr. Elwes had come to town in his usual way, and taken up his abode in one of the houses that were empty. Colonel Timms, who wished much to see him, by some accident was informed that his uncle was in London, but then how to find him was the difficulty. He inquired at all the usual places where it was probable he might be heard of, in vain. Not many days afterwards he learnt accidentally that Mr. Elwes had been seen going into an uninhabited house in Great Marlborough Street. This was some clue to Colonel Timms, and he went thither. No *gentleman* however had been seen to enter, but a pot-boy recollected that he had noticed a poor old man opening the stable-door, and locking it after him. Colonel Timms went and knocked loudly at the door, but no one answered. Some of the neighbours said they had also seen such a man enter, so Colonel Timms resolved to have the stable-door opened; a blacksmith was sent for, and they entered the house together. In the lower part of it all was shut and silent, but on ascending the staircase, they heard the moans of a person seemingly in distress. They went to the chamber, and there, upon an old pallet bed lay stretched out, seemingly in death, the figure of Mr. Elwes. For some time he seemed insensible that any one was near him; but on some cordials being administered by a neighbouring apothecary, who was sent for, he recovered enough to say "that he had, he believed, been ill for two or three days, and that there was an old woman in the house, but for some reason or other she had not been near him; that she had been ill herself, but that she had got well, he supposed, and gone away." On repairing to the garrets, they found the old woman stretched out *lifeless* upon the floor. To all appearance she had been dead about two days! With all this penury, Mr. Elwes was not a hard landlord, a fact that redounds in no slight degree to the credit of *such a man*.

The character of an impartial and upright country magistrate is the best character which the country knows. What a lawgiver is to a state, an intelligent magistrate is in a less degree to the district where he resides. Such a magistrate was Mr. Elwes while he resided in Berkshire, and it was almost entirely owing to this best of recommendations, that an offer was made to him afterwards, of bringing him in as a representative for the county. The prospect of a contested election betwixt two most respectable families in Berkshire first suggested the idea of proposing a third person who might be unobjectionable to both. Mr. Elwes was chosen. He agreed to the proposal, as it was further enhanced to him by the understanding that he was to be brought in by the freeholders for nothing. I believe all he did was dining at the ordinary at Abingdon; and he got into parliament for eighteen pence! On being elected member for Berkshire, he left Suffolk and went again to his seat at Marcham. His fox-hounds he carried along with him, but finding his time would in all probability be much employed, he resolved to relinquish his hounds; and they were shortly after given away to some farmers in that neighbourhood. Mr. Elwes was sixty years old when he thus entered on public life. In three successive parliaments he was chosen for Berkshire; and he sat as member of the House of Commons about twelve years. It is to his honour—an honour in those times indeed most rare!—that in every part of his conduct, and in every vote he gave, he proved himself to be what he professed, an independent country gentleman. Wishing for no post, desirous of no rank, wanting no emolument, and being most perfectly conscientious, he stood aloof from all those temptations which have led many good men astray from the paths of honour. He was once unhappy for some days on learning that Lord North intended to apply to the king to make him a peer. I really believe, had such an honour fallen unexpectedly upon his head, it would have been the death of him. He never would have survived the being obliged to keep a carriage and three or four servants—all perhaps better dressed than himself! For some years Mr. Elwes supported the ministry, and I am convinced, adds his biographer, it was his fair and honest belief that the measures of Lord North were right. The support he gave was of the most disinterested kind, for no man was more materially a

sufferer by Lord North's American war than he, in consequence of the depreciation in the value of his great property in houses which took place. At last however Mr. Elwes's confidence gave way, and he entered into a regular and systematic opposition with the party of Mr. Fox, which he continued till Lord North was driven from power in March, 1782. When the famous coalition took place, it obtained the support of Mr. Elwes, in consequence of which he was threatened with a contest at the ensuing dissolution of parliament. The character he had long borne in Berkshire for integrity might have made a re-election not improbable, had he been willing to have submitted to the necessary expense. But that was out of the question—he would have died at the first election dinner! So voluntarily, and without offer of resistance, he retired from public life. During his parliamentary career, it was said of Mr. Elwes, "that no man or party of men could be sure of him;" in itself a decisive proof of his independence of character. I say, continues Mr. Topham, what I ought:—I write only that which I am in duty bound to write—when I here set down—that a more faithful, a more industrious, or a more incorruptible representative of a county never entered the doors of the House of Commons. He never asked or received a single favour, and I believe he never gave a vote but he would solemnly have laid his hand upon his breast and said, "So help me God! I believe I am doing what is for the best!"

[To be continued.]

WINCHESTER COLLEGE AND ITS LIBRARY.

[Continued from No. 504.]

The floor of the chapel was, in former times, paved with ornamental stones inlaid with curious brasses; and the choir stalls were in the ancient style adorned with canopies and spire-work. Bnt the monuments and the stalls have been ejected from the chapel itself, and the stalls ranged in the ante-chapel something after the fashion of antique chairs in the hall of a gentleman's mansion; and they are also without their canopies and their spires, which have gone one knows not whither. The monumental stones also have been removed into the ante-chapel; but most of the brasses have been torn off or obliterated, though all the inscriptions were copied by Wood the antiquary, and most of them are, we believe, preserved in Warton's description. The cause for which the old stalls and old monuments were ejected from this chapel, was what was then considered as a very great improvement, and highly creditable to the ingenuity of the projectors, at whose expense it was made; but which has sadly disfigured the place, by destroying the keeping and congruity. The change was made by Dr. Nicholas, in 1681; and he placed modern benches and wainscoting in the room of the stalls, new painted the choir, and had a new altar erected of the Ionic order, so that the roof and walls still appear those of an ancient chapel, while the floor and furniture would better become a modern meeting-house, and the organ is stuck up against the north wall, as if doubtful to which it should belong. The appointment of the choir consists of three chaplains, three clerks, an organist, and sixteen choristers; and the choir service is performed at 8 o'clock and 5 o'clock on Sundays and holidays, and 5 o'clock on the vigils of the latter. In vacation time strangers may attend the chapel; and there are tribunes for females in the places formerly occupied by the side altars.

In former times, a door led from the chapel to the cloisters; but that is now closed up, and the entrance to the cloisters is become what may be called the third court. These cloisters constitute the extreme south-east of the College buildings, and form a square of 132 feet on the side. These cloisters are very neat, but evidently of much more modern date than the time of Wykeham. It is probable that they were built during the wardenship of Thurburn, and about the year 1430, by John Fromond, who certainly in that year built the chapel which occupies the centre of their area. It is not improbable that this Fromond may have been acquainted with and under obligations to Wykeham, from his liberality to both Wykeham's colleges. But he was in secular employment, and not a churchman, for while he gave annual gowns to the choristers, his wife Maud gave two cups to the College, and this not for sacerdotal purposes, as appears from the following inscription said to have been upon one of them:—

"He shall have Chryste's blessing to his dell,
Whoso of me drinketh well;"

from which it would appear that this good lady encouraged the establishment in their potations.

When Fromond built this chapel, he endowed a priest to officiate in it, and furnished apartments for him in the north-western part of the College. But this endowment, being within the statute at the time of the dissolution, was abolished, and the chapel became part of the College. What use was made of it at first has not been said, but in the last year of the wardenship of Nicholas Love, that is, in 1629, it was converted into a library, and so remains to the present time. The collection of books is considerable, and some of them are of great value; and there are also a few articles such as are suitable for a museum; but upon the whole it is not greatly worthy of attention, and does not appear to have much effect upon the knowledge of the inmates of the College. Still it is a handsome building, very neatly fitted up, and kept in good order. To the westward of the cloisters and library, and separated from them by an area of moderate dimensions, stands the building which is, in a public point of view, the most interesting of the whole. This is the public school, a plain substantial building erected in the year 1687, at a cost of 2600*l*., obtained chiefly by a subscription amongst Wykehamists, who have at all times been forward in contributing to the improvement of the place of their education. Over the entrance there is a bronze statue of the founder, modelled, cast, and presented by Caius Gabriel Cibber, who was as famous as a statuary, as his son Colly Cibber was notorious as player, poet-laureate, and hero of the 'Dunciad.' His statues of Melancholy and Raving Madness, which long stood over the gate of old Bethlehem, were always reckoned among the *chefs d'œuvre* of modern art. The statue in question is a good one, but has been disfigured by being painted and gilt. The inscription is in these words, only in Latin: "Sacred to the memory of William of Wykeham, bishop of Winchester, founder of this College. Caius Gabriel Cibber, statuary to the king, and a relation, by his wife, of the aforesaid founder, caused this brazen statue of him to be cast and erected here at his own expense." This school-room is spacious, being 90 feet long, 36 feet wide, and of proportional height: upon the walls are set forth the admonitions and rules for the government of the scholars, all in Latin; but we shall give the English translations, as some of them are a little curious, and all of them sensible.

The admonitions are three: "Either learn; or depart; or in the third place be flogged;" and adjoining to these there are appropriate symbols. The mitre and crozier to the first, as the probable rewards of learning; an inkhorn and sword to the second, to order and enforce expulsion; and a scourge to the third, as the only instrument that can speak to the feelings of a dunce. The regulations we shall quote at length.

Table of Scholastic Laws.

"*In the Church.*—Worship God. Say your prayers with a pious affection of the mind. Let not your eyes wander about. Keep silence. Read nothing profane.

"*In the School.*—Let each one be diligent in his studies.

Let him repeat his lesson in a low tone of voice to himself, but in a clear tone to his master. Let no one give disturbance to his neighbour. Take care to spell your theme right. Have all your school implements in constant readiness.

"*In the Hall.*—Whoever says Grace, let him repeat it distinctly. The rest are all to answer to him. All are in the meantime to stand upright in their places. Whatever is to be repeated, let it be clearly and properly pronounced. Whilst you sit at table, behave with due decorum.

"*In the Court.*—Let no one throw stones or balls against the windows. Let not the building be defaced with writing or carving upon it. Let no one approach the masters with his head covered or without a companion.

"*In the Chambers.*—Let cleanliness be attended to. Let each one study in the evening, and let silence prevail in the night.

"*In the Town, going to the Hill.*—Let the scholars walk in pairs. Let them behave with proper modesty. Let them move their hats to their masters and other respectable persons. Let decency regulate your countenance, your motions, and your gait. Let no one on the hill go beyond the prescribed limits.

"*Everywhere and at all times.*—Let inferiors be subject to the preposters. Let the preposters govern with equity. Let the latter be themselves free from fault and give good example to the rest. Let both inferiors and preposters refrain from everything that is unbecoming, both in actions and in words.

"Whoever disobeys these rules, upon conviction will be sentenced to condign punishment.

"None will be excused in staying at home beyond the time of the vacation. Those who are detected in going out of the College without leave will be expelled for the third offence."

It must be admitted that these rules are admirable; and we believe they are strictly observed both by the foundation scholars and the gentlemen commoners. They are indeed worthy of transcription into all other public schools, and we believe that obedience to them is so general, that there have been fewer revolts, disturbances, barrings out, and other insubordinations at Winchester College than at any other public school in the kingdom.

The commoners, not being under the control of the warden, and paying for all that they receive, have the privilege of the school-room and the tuition only within the College. They are under the immediate superintendance of the head master, and have a quadrangle and a hall of their own, situated at the north-western angle of the College, and under the immediate observation of the head master. At the present time this quadrangle, which is College property as well as the rest, is in progress of rebuilding in very splendid style; and until it is rebuilt suitable abodes are hired for the head master and the commoners. The foundation scholars are, by the foundation, limited to seventy, and the commoners are in general about a hundred and thirty, making in all about two hundred young gentlemen constantly receiving education at this establishment.

To get on the foundation, interest is of course required; and the Warden and Fellows here, and those of Wykeham's College, Oxford, are the parties with whom interest is to be made. For commoners it is only required that they shall be respectable and of good moral habits, and their parents competent to the payment of the fees, which are of course considerable. The common scholars wear no gown or other distinction of dress; but the prefects, or preposters, wear black gowns, and caps with a square top. These last are appointed for their talents alone, and are often not half the size of the young men of whom they have the direction.

As the original intention of this school was to prepare students for Wykeham's new College at Oxford, this purpose is still kept up; and the elections are made previous to the summer vacation. At this time, the Warden and Fellows of the New College, or such portion of them as may be named for the purpose, repair to Winchester; and there, with the Warden, Sub-Wardens, Head Master, and other Fellows of that College, form a court of examination for those qualified for the College. The candidates consist of two of the kin of the founder, if such are found qualified, and after them of the other foundation scholars in the order of their respective merits. While at the school here the total expense to gentlemen commoners, may be about a hundred and twenty pounds a year, and perhaps the extras not included in the foundation may cost the foundation-scholars some thirty or forty. There is no limitation as to the age at which foundation-scholars may enter the establishment; but if they are not of the kindred of the founder, they must leave it at eighteen, whereas his kindred may remain till they are five and twenty. After the candidates for Oxford have been selected and all the business is over, there is a ball, and the final act previous to the summer vacation is the chanting of a Latin song, "Dulce Domum," to which justice cannot be done in any English translation.

Sagacity of Ants.—In the swampy regions of Xarayes, in La Plata, where the inundation of the Paraguay commences, the ants, which are in vast numbers there, have the sagacity to build their nests in the tops of the trees, far out of reach of the waters; and these nests are made of a kind of adhesive clay, so hard that no cement can be more durable or impervious to the weather.—*Sir Woodbine Parish's Buenos Ayres and La Plata.*

Mode of Sticking Peas.—The following mode of sticking peas, and especially the taller varieties, is both cheap and simple, and possesses many advantages. Procure a number of strong thick stakes or thin poles, in length according to the height of the peas, from five to ten feet, and drive them into the ground on each side of the row, at the distance of three or four yards; pass a small line along the poles, taking a turn on each within a few inches of the ground, and as the peas advance, raise the next turn a little higher, and so on in succession, till they have attained their full height. Sew the tendrils of the peas and truss them round these lines, by which they will be supported in a better manner than by the common method of sticking. When spread regularly along the lines, they have a fine circulation of air, and pods can be pulled at all times without injuring the haulm, and as the birds have no twigs to alight on, the portion of the crop which they otherwise would devour and destroy is saved. An excellent way to preserve peas or beans from mice is to chop up the tops of the last year's shoots of furze, and sow them in drills; the author has known it to have been an effectual remedy in several instances, where these mischievous little animals had been very prevalent.—*Vegetable Cultivator, by John Rogers.*

Slave-like Notions on the Institution of Property.—When we hear men speaking against the institution of property, what is it but a slave's language? A slave can neither acquire nor alienate,—he has and can have no property; the notion of property is essentially foreign to his condition;—but to freemen it is one of the highest conditions of humanity that men can not only possess what they eat and drink and wear,—which the beasts can do no less,—but that they can lay by, improve and increase, give and even bequeath certain portions of the earth, or of the things upon it, portions taken by industry and preserved by law from being subject to the wasteful scramble of ignorance and force. An institution so sacred, and so essential to the elevation of our nature, is, and ever has been, deeply valued by all freemen. Slaves have no share in it, and no perception of it; and they who speak of it slightly proclaim themselves to be as slaves.

*** The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's Inn Fields.

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